SUGGESTIONS FOR SEED PRODUCTION

Refer to the hybridization committee listings for choice, positive parent plants. Use these prolific seeders and fertile pollen cultivars whenever possible, together, or with your available favorites.

In theory, try to make purposeful crosses. Do not cross cultivars with like insufficiencies, such as - flimsy petal texture, poorly shaped bushes, shy bloomers, etc. Consider carefully the characteristics that you wish to impart, such as - eye zone, ruffles, blotching, edging, blooming capacity, and foliage. Crosses between any group of singles will normally produce about fifteen percent double flowers, and crosses which include petaloids or extra petals will increase this percentage.

Now for the actual mechanics of pollinating: When the bloom begins to unfold on the chosen pollen (male) plant, examine the pollen capsules, or anthers. Note the resemblance to small beans with a cleft across the top center. Continued observance will show a slow separation of the cleft, (called dehiscing, or breaking open) exposing the minute pollen grains looking like tiny egg yolks. Now is the time for fertilization. Remember, you cannot be too early, but you can be too late. Do not wait until all pollen is fully exposed or becomes feathery (webby). Remove the entire staminal column and use it as a miniature brush, rubbing the pollen carefully but firmly on the pads of the stigma, which should be sticky. The freed pollen grains should adhere to the sticky and hairy surface. If they do not, tap the style (Staminal column) with your forefinger to dislodge some pollen. If this does not work, wait a few minutes, as dehiscing will develop more quickly than you might expect. Treat all five stigma pads.

Immediately tag all the treated blooms with the neme of the pollen plant and the date. The use of a notebook to record the names of the parents with the pistilate or female parent first, followed by the

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staminate or male parent, and the date, is suggested. Later, when the capsule is harvested, this information should be entered in a permanent record book (often referred to as a "Stud Book") with a serial number and the number of seeds in the capsule. Some use a card file, which allows room to describe the seedlings or "children" of each parantage. In any case, good record keeping is vital to the success of the program.

Cool, but not cold, days are best for hybridizing. The best months are late September, October, to mid-November, then mid-March, April, and May. However, try September through June. When the pollen dehisces from 9 to 11 A. M., and the temperature stays between 65 and 75 degrees you will have the most success. When pollen can be obtained earlier than 9 A.M. the day will usually be too hot; after 12 noon it will be too cold as the stigmas will have likely dried and will not receive the pollen. Cloudy, hazy days with relatively high humidity are best. Try to keep the pollinated bloom in the shade by tucking behind its foliage, or if a container grown plant, move it out of the sun.

The capsule or seed pod - the ovary of the hibiscus flower has five carpels or locks, and each lock contains 8 to 12 ovules, or undeveloped seed, initiated in parallel rows. Some of the ovules may fail to develop fully, and abortion of a majority of the seed will cause the pod to shed, or in some cultivars such as Nagao 20 and High Society the pod will usually hold and continue to grow but the seeds do not develop. These pseudo-pods harass and vex the hybridizer. However, once the ovules have been fertilized the seed pod will develop rapidly, attaining full size in about 18 days. Removal of the entire calyx is advised, so that spraying may be more effective. Spray or dust at regular intervals. Do NOT use sprays containing Malathion, such as Isotox - it may cost you your precious seed pod, in addition to the loss of many leaves. A mixture of Lindane and Neutral Copper (Coppo-film) is a good insecticide and fungicide, for hibiscus. Numerous insects attack the unripened seed,

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